INSTRUCTION MANUAL

CD100 Mountable Display with Keypad

Revision: 1/14

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Table of Contents

PDF viewers: These page numbers refer to the printed version of this document. Use the PDF reader bookmarks tab for links to specific sections.

1. Introduction 1

2. Cautionary Statements 1

3. Quickstart 2

4. Overview 2

5. Specifications 3

6. Installation 3

7. Operation 6

8. Maintenance 7

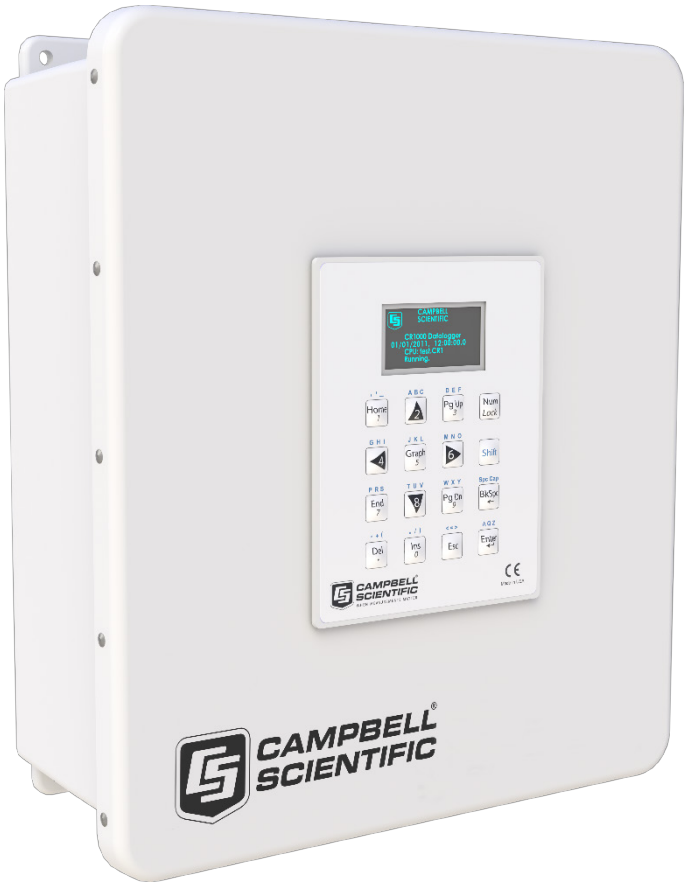
Figures

3-1. Connecting the CD100 to the CR1000 Datalogger 2
6-1. Template Measurements 4
6-2. Profile of Installed CD100 5
7-1. Display Menu Overview 7

Tables

7-1. Keyboard Display Key Functions 6

CD100 Mountable Display with Keypad



1. Introduction

The CD100 is an easy-to-read panel-mountable datalogger data display. It includes a large-format keypad for input. The CD100 is compatible with several Campbell Scientific dataloggers. Refer to Section 5, *Specifications*, for a complete list. When properly installed, the CD100 is weather and dust resistant. As a purchased service, Campbell Scientific offers the option of installing the CD100 into an enclosure.

2. Cautionary Statements

- The CD100 is not compatible with the CR850 datalogger, nor should it be used in tandem with the CR1000KD keyboard and display on any datalogger.
- Weather resistance of the CD100 is dependent on proper installation into the bulkhead of a weather tight enclosure. See Section 6, *Installation*, for details of proper installation.
- The CD100 is easily damaged if disassembled. If disassembly is required, refer to Section 8, *Maintenance*.

3. Quickstart

1. If the CD100 is to be mounted into an enclosure bulkhead, refer to Section 6, *Installation*, for instructions.

2. Using an SC12 cable as shown in FIGURE 3-1, connect the 9-pin CS I/O port of a CR1000 or other compatible datalogger to the 9-pin CS I/O port on the back of the CD100.

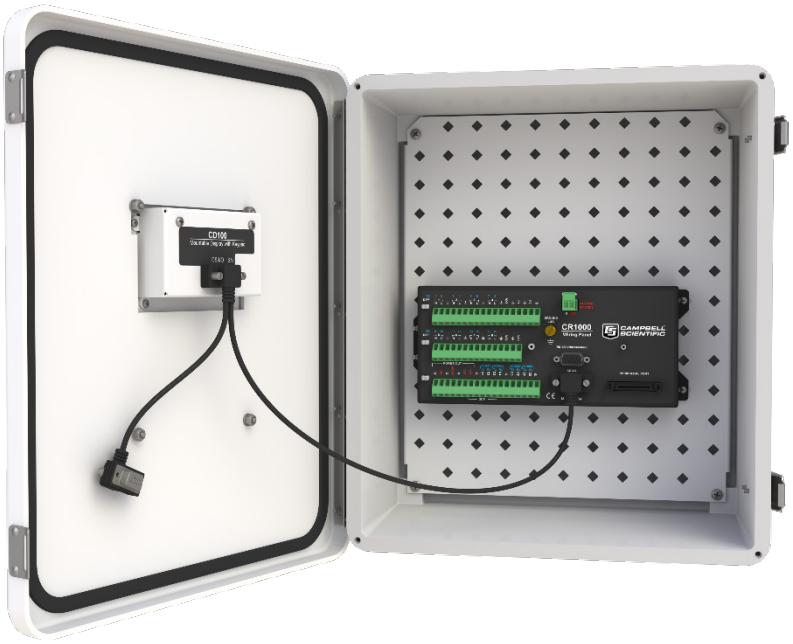


FIGURE 3-1. Connecting the CD100 to the CR1000 Datalogger

3. Power the datalogger; the display should power up and be ready for use. Keyboard commands are summarized in Section 7, *Operation*, and in the datalogger manual.

4. Overview

The CD100 is a panel-mountable display with keypad. It facilitates user input and the display of data over a wide temperature range. The vacuum fluorescent element gives the CD100 high contrast, so it is easy to read in daylight conditions.

The CD100 is compatible with the dataloggers listed in Section 5, *Specifications*. It will not operate properly with the CR850 datalogger or in tandem with the CR1000KD on any datalogger.

When properly installed, the polyvinyl face and rear gasket make the CD100 weather resistant and prevent ingress of water and dust. The back of the CD100 is not weather resistant. If used outdoors, or in a condensing environment, the CD100 should be bulkhead mounted as recommended in Section 6, *Installation*.

5. Specifications

Features:

- Operable with gloved hand
- 16 key alpha numeric keypad
- 8 line x 21 character display (64 x 128 pixel)

Compatibility:	CR800 (not CR850) CR1000 CR3000
Interface:	CS I/O, SDC address 2
Temperature	
Operating:	–45° to 85°C
Storage:	–50° to 85°C
Transit:	1 hour at –60°C
Power Requirement	
Source:	12 Vdc from datalogger CS I/O port
Current Draw	
Inactive:	0.02 mA
Active:	140 mA
Certification:	CE Compliant
Rating	
Water and dust ingress	
Installed as recommended:	IP66
Uninstalled:	None (vulnerable to water and dust)
Weight:	0.36 kg (0.80 lb)
Dimensions:	176 x 138 x 8 mm (6.9 x 5.4 x 1.4 in)

6. Installation

NOTE As a purchased service, Campbell Scientific offers the option of installing the CD100 into an enclosure.

Install only on a flat, non-porous surface. The supplied gasket must create a weather-tight seal when installed or permanent damage to the display and other enclosure contents may occur.

1. Use the template shipped with the CD100 or create a template using the measurements shown in FIGURE 6-1, *Template Measurements*.
2. Make the required cuts in the bulkhead.
3. Remove cutting debris from bulkhead.
4. Mount the CD100 as shown in FIGURE 6-2, *Profile of Installed CD100*.

5. Before tightening screws, adjust the gasket to align it just inside the edges of the display. Uniformly tighten the screws, but do not over-tighten.

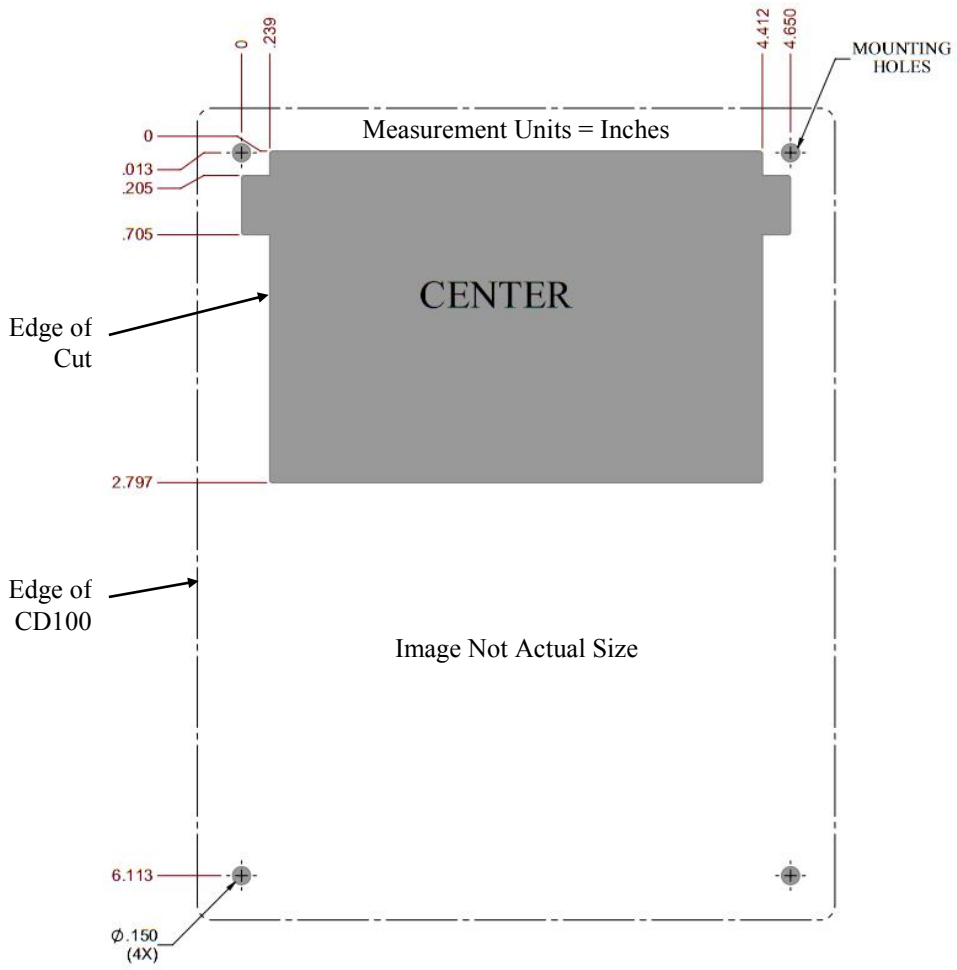


FIGURE 6-1. Template Measurements

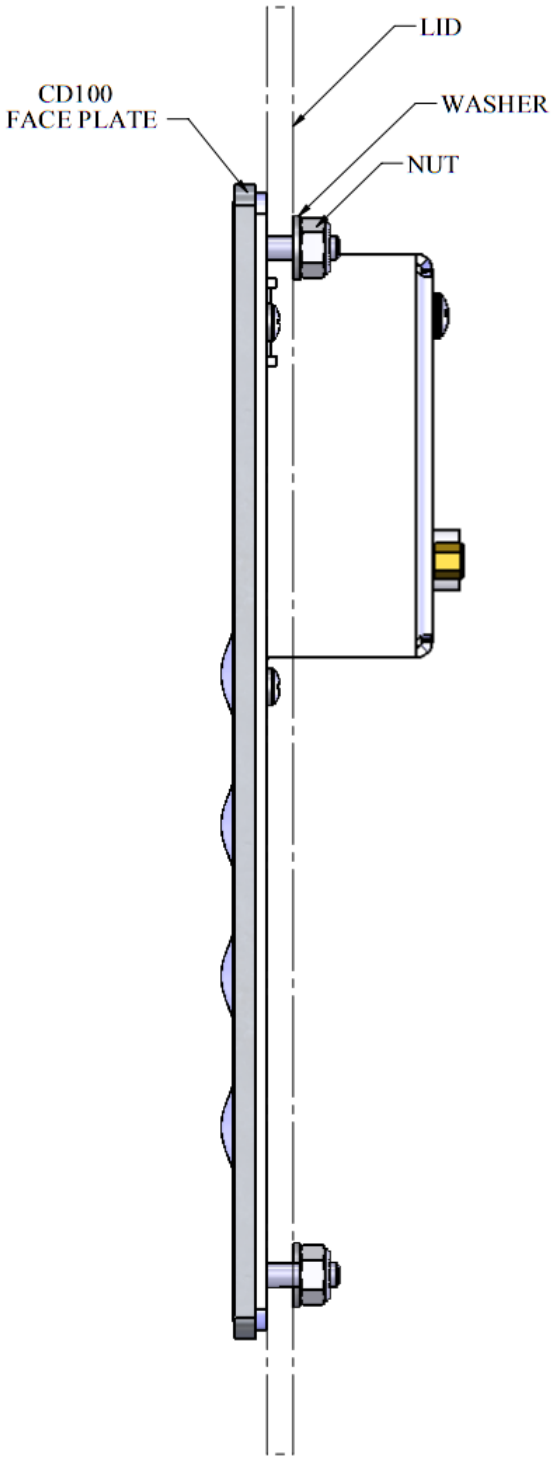


FIGURE 6-2. Profile of Installed CD100

7. Operation

An overview of keyboard functions is presented in TABLE 7-1, *Keyboard Display Key Functions*, and FIGURE 7-1, *Display Menu Overview*. Detailed descriptions are available in the datalogger manual.

TABLE 7-1. Keyboard Display Key Functions

Key	Special Function
[2] and [8]	To navigate up and down through the menu list one line at a time
[Enter]	Selects the line or toggles the option of the line the cursor is on
[Esc]	Back up one level in the menu
[Home]	Move cursor to top of the list
[End]	Move cursor to bottom of the list
[Pg Up]	Move cursor up one screen
[Pg Dn]	Move cursor down one screen
[BkSpc]	Delete character to the left
[Shift]	Change alpha character selected
[Num Lock]	Change to numeric entry
[Del]	Delete
[Ins]	Insert/change graph setup
[Graph]	Graph

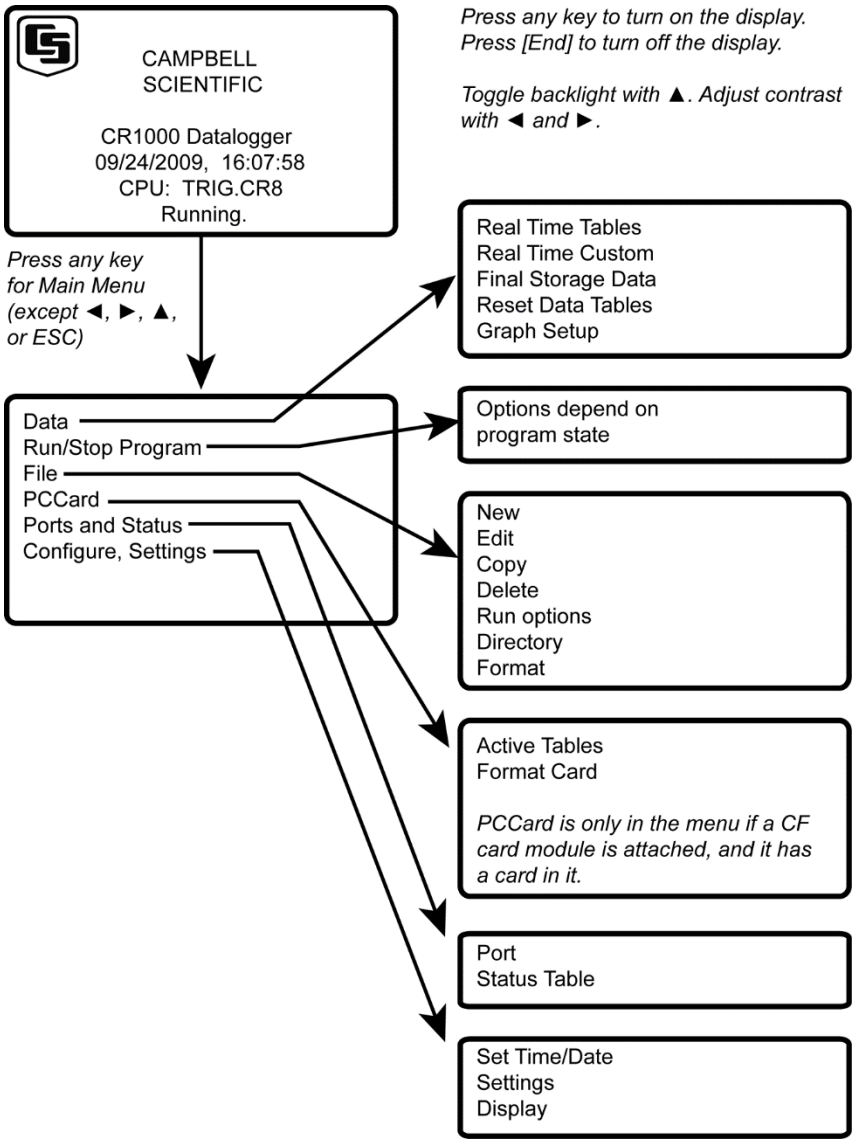


FIGURE 7-1. Display Menu Overview

8. Maintenance

Active desiccant must be maintained in the datalogger enclosure to avoid water damage to the display electronics, the datalogger, and other contents. No other maintenance is required.

Depending on the environment and weather tightness of the installation, dust may accumulate between the surface window and the underlying display elements. If this occurs, return the display to Campbell Scientific for cleaning.

Do not disassemble the CD100. The printed circuit ribbon connecting the keypad to the display can be easily torn when not removed properly. If the display must be disassembled, take care to grasp the header and not the printed circuit itself. Sheer or torsional stresses must not be put on the printed circuit. The warranty does not cover damages caused by disassembly.

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